



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,399	01/04/2005	Hideharu Iwasaki	263048US0XPCT	6829
22850	7590	10/17/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.			EXAMINER	
1940 DUKE STREET			MCCRACKEN, DANIEL	
ALEXANDRIA, VA 22314			ART UNIT	PAPER NUMBER
			1793	
NOTIFICATION DATE	DELIVERY MODE			
10/17/2008	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/519,399	<b>Applicant(s)</b> IWASAKI ET AL.
	<b>Examiner</b> DANIEL C. MCCRACKEN	<b>Art Unit</b> 1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 7/24/2008.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 33-61 is/are pending in the application.
- 4a) Of the above claim(s) 35,42 and 52-61 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 33,34,36-41 and 43-51 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 33-61 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 6/30/2008
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

Citation to the Specification will be in the following format: (S. # : ¶/L) where # denotes the page number and ¶/L denotes the paragraph number or line number. Citation to patent literature will be in the form (Inventor # : LL) where # is the column number and LL is the line number. Citation to the pre-grant publication literature will be in the following format (Inventor # : ¶) where # denotes the page number and ¶ denotes the paragraph number.

#### *Response to Arguments*

Applicants presented eight pages that “ma[d]e no statement with respect to the propriety of the grounds for the rejection” accompanied by an amendment cancelling all of their claims. It is, of course, the claims that define the invention. 35 U.S.C. 112, ¶2. As such, Applicants arguments have no relevance insofar as they are directed to claims that are now cancelled. As all rejections are mooted by cancellation, all rejections in the non-final office action dated 1/25/2008 are WITHDRAWN. New rejections appear forthwith.

It is worthy to note that Applicants, in their remarks, state “raw natural carbonaceous materials can contain alkali and heavy metals at high levels.” (Remarks of 7/24/2008 at 11). Presumably, this argument was presented to show that the references applied in the non-final office action have levels of alkali metals that do not meet the claimed limitations. Ordinary, this type of argument might be successful, except Applicants have stated on and for the record:

**Examples of materials that can be used include plant-derived materials, e. g., wood, sawdust, coconut shells, nut shells (charcoal) such as walnut shells or the like, fruit pits (charcoal), lignin and the like, mineral materials such as peat, peat moss, lignite, brown coal, bituminous coal, anthracite, coke, coal tar, coal pitch, petroleum distillation residue, petroleum pitch and the like,**

natural materials such as cotton, rayon and the like, and synthetic materials such as phenol resins, acrylics, vinylon and the like.

(S. 12: 2-11) (emphasis added). Note that coconut shells are exactly what the Kim paper presented by Applicants uses. The specification implies that carbonic acid treatment is vital for alkali removal, but claim 36 does not recite this step- and even teaches alkali activation. Applicants should resolve this ambiguity in their response. Applicants should note that they have used very expansive language in other places in their Specification, for example at (S. 12: 12-15) (stating any activation treatment can be used.). This statement in the specification, buttressed with those noted in the non-final office action (related to the sources of alkali metals) further support the Examiners position taken in the first office action.

Finally, Applicants are reminded of MPEP 714.02, which states *inter alia* “[a]pplicant should also specifically point out the support for any amendments made to the disclosure.” Applicants have not done so here, instead providing a blanket statement that the claims “are supported throughout the specification and original claims, especially Claims 31 and 32.”

#### Claim Construction

Applicants have now repackaged their invention in terms of a “polarizing electrode” and a method for making the same. The method claims – only *now* presented – are restricted *infra*. The Examiner makes the following remarks with respect to the product claims. The three independent product claims, Claims 33, 36 and 43, all recite limitations stating “wherein the activated carbon is *obtained by subjecting* an easily graphitizable carbonaceous material to an alkali activation treatment.” (emphasis added). These are product-by-process claims. “[E]ven

though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted). Structure implied by the process steps should be considered. MPEP 2113 (and cases cited therein). As such, the structure (in this case composition) implied by the step claimed here is (a) the carbon must be activated (conventionally thought of as porous carbon with a high surface area), and (b) the presence of alkali metals. No weight is given to Applicants Markush group reciting petroleum coke, pitch, etc. as ultimately it is activated and the only relevant characteristic to the product claim is the presence of activated carbon. Since Applicants claim the alkali content in terms of a maxima (i.e. “content of heavy metals is X or less”), the claims read on a content of zero ppm. Stated differently, Applicants have effectively written the alkali treatment out of the claim insofar as the product claims are concerned. Thus, similar to the non-final office action of 1/25/2008 and in light of the remarks above, references that teach different activation treatments and suggest low alkali metal contents will anticipated Applicants claim (provided of course the other elements are taught). This statement is made once for brevity’s sake, but to the extent it is necessary to support a rejection *infra*, the Response to Arguments and Claim Construciton, as well as the discussion related to inherency in the non-final office action of 1/25/2008 are expressly incorporated therein by reference.

***Information Disclosure Statement***

Only that listed on Applicants IDS has been formally considered. Thus, any document submitted and not listed (e.g. Australian search reports, etc.) has not been formally considered and will not be published on the face of the patent should any patent issue. Applicants should respond accordingly.

***Election/Restrictions***

Newly submitted claims 35, 42, and 52-61 (drawn to methods for making polarizing electrodes) are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The same technical feature present in all claims (i.e. activated carbon polarizing electrodes) is old and known. For example, see US 6,442,015 to Niiori, et al. Furthermore, the ambiguities associated with what metals can be present and how they get there support the conclusion that the process is not specifically adapted for the manufacture of the product. 37 C.F.R. 1.475(b). Thus unity is lacking.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 35, 42, and 52-61 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The reference teaches each and every limitation of the rejected claims. The pinpoint citations are in no way to be construed as limitations of the teachings of the reference, but rather illustrative of particular instances where the teachings may be found.

Claims 33-34, 36-41, 43-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura, et al., *Influence of physical properties of activated carbons on characteristics of electric double-layer capacitors*, J. Pwr. Sources 1996; 60: 225-231 (hereinafter “Nakamura at \_\_”).

With respect to Claims 33-34, 36-41, 43-51 activated carbon electrodes with a binder (PTFE). (Nakamura at 226) (“2.3 Preparation of electrodes”). The copper electrode is the “conductive material.” *Id.* It is expected that the activated carbons of Nakamura necessarily teach the metals present as well as the properties claimed in Claim 51. Note that Nakamura uses coconut as the carbonaceous material and Applicants have stated on and for the record that this kind of material can be used. (S. 12: 2-11). This is the evidence offered to show inherency. “[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on prima facie obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). See also comments re: inherency in non-final office action dated 1/25/2008. Applicants American counsel should ensure that Applicants understand American

product-by-process claiming and any affidavits should take into account the fact that applicants are arguing product-by-process claims.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The references cited teach each and every limitation of the rejected claims. The pinpoint citations are in no way to be construed as limitations of the teachings of the reference, but rather illustrative of particular instances where the teachings may be found. As to the rejection under 35 U.S.C. §§ 102/103, where the applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the Examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection. See MPEP 2112 III. (discussing 102/103 rejections).

Claims 33-34, 36-41, 43-51 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nakamura, et al., *Influence of physical properties of activated carbons on characteristics of electric double-layer capacitors*, J. Pwr. Sources 1996; 60: 225-231.

The preceding discussion of Nakamura accompanying the anticipation rejection *supra* is expressly incorporated herein by reference. See above with respect to 102/103 rejections.

***Conclusion***

The Examiner has considered US 6,225,256 to Shawabkeh, et al. and considers it relevant to Applicants disclosure in that it appears to teach similar if not identical washing steps to those disclosed by Applicants. This reference should be made of record in any divisional application filed as a result of the restriction in this case.

All amendments made in response to this Office Action must be accompanied by a pinpoint citation to the Specification (i.e. page and paragraph or line number) to indicate where Applicants are drawing their support.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL C. MCCRACKEN whose telephone number is (571)272-6537. The examiner can normally be reached on Monday through Friday, 9 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel C. McCracken/  
Daniel C. McCracken  
Examiner, Art Unit 1793  
DCM

/Stuart Hendrickson/  
Stuart L. Hendrickson  
Primary Examiner